in the form of prisms with a regular hexagonal base surface and being disposed in a honeycomb arrangement.

R E M A R K S

Claims 1 and 25 have been amended in an effort to define the disclosed reaction vessel more clearly, and to overcome the rejection under 35 U.S.C. 112. Claims 6, 19 and 32 have been formally amended to overcome the rejection under 35 U.S.C. 112.

The rejection of the claims under 35 U.S.C. 103(a) as being unpatentable over Kim et al, cited. This prior art has been acknowledged by applicants on page 4 of the specification. Kim et al disclose a **central** reservoir 28 in communication with at least one reaction area. Each reaction area communicates directly or indirectly with the central reservoir through a diffusion channel 30. The central reservoir, the reaction areas and the diffusion channels of each crystallization units are open on top and a tabbed coverslip is placed over the unit (col. 3, lines 46-63). In the preferred embodiment (col. 6, lines 8-10), four reaction areas are arranged around the central reservoir.

In contrast thereto, applicants' reaction vessel does **not** have a **central** reservoir with reaction areas arranged thereabout but **each** reaction chamber has a reservoir and reaction areas co-operating therewith. In other words, the reservoir and reaction areas are arranged in the **sam** reaction chamber. The object of

the claimed invention has been summarized on page 5 of the specification, i.e. to provide a reaction vessel for producing a crystal, which enables a plurality of production processes with different process parameters to be operated with high efficiency. Advantageously, space is gained by arranging the co-operating reservoir and reaction areas in the same reaction chamber so that a greater number of reaction chambers of the same area may be placed in a reaction vessel of the same area, when compared to Kim et al. While the space saving for each reaction chamber may not be that great, the total space saving for the multiplicity of reaction chambers in the reaction vessel adds up to a substantial saving so that the operation is optimized.

In addition, the geometry of the arrangement set forth in the last three lines of claim 1 and the last two lines of claim 35 produces a design saving substantial material in the manufacture of the reaction vessel. It enables adjacent reaction chambers to be separated by a common wall, as has been specifically set forth in claims 37 and 38. Such a reaction vessel may be optically used in a high-throughput-screening process.

In view of the above, claims 1 and 35 are believed to be patentable over the prior art, and the claims dependent thereon are allowable therewith.

Favorable reconsideration and allowance of claims 1-3 and 5-38 are respectfully solicited.

Respectfully submitted,
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I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231, on March 14, 2003.

Maria Guastella

EXHIBIT A

Marked-up Copy of Amended Claims
1, 6, 9-10, 12-16, 19-20, 27-28, 32 and 35

1. (Amended) Reaction vessel for producing a [sample, in particular a] crystal[,] from a substance in liquid form or in solution, comprising at least one housing part and having several reaction chambers, each forming a separate gas chamber, [consisting of at least one housing part,] and each reaction chamber [has] having a reservoir and several reaction areas co-operating therewith, the reaction areas being connected to one another and to the reservoir in order to exchange gas, [characterised in that] the reservoirs and the reaction areas co-operating therewith [are] being disposed immediately adjacent to one another in rows[,] and distributed in an [a predeterminable,] identical manner, these rows running parallel with one another, and each row of reservoirs co-operating with a row of reaction areas.

6. (Amended) Reaction vessel as claimed in claim 1, characterised in that respective adjacent reservoirs of two consecutive rows are offset from one another by a [predeterminable] same distance and in a same direction relative to the direction of the rows.

9. (Amended) Reaction vessel as claimed in claim [1] 8, characterised in that the vessel bottom parts comprise at least one reservoir and several reaction areas.

10. (Amended) Reaction vessel as claimed in claim [1] 8, characterised in that at least three [or several] reaction areas are provided in the vessel bottom parts.

12. (Amended) Reaction vessel as claimed in claim [1] 8, characterised in that the reaction areas of the vessel bottom

parts are disposed at a height in the region of 5 mm to 10 mm above the vessel base of the reservoir.

13. (Amended) Reaction vessel as claimed in claim [1] 8, characterised in that the reaction areas of the vessel bottom parts are provided in the form of recesses with a capacity in the region of less than 5µl.

14. (Amended) Reaction vessel as claimed in claim [1] 13, characterised in that the recesses are provided in the form of a plate-shaped cuboid designs or in a cylindrically-shaped disc.

15. (Amended) Reaction vessel as claimed in claim [1] 13, characterised in that floors of the recesses are of an approximately convex curvature relative to the floors.

16. (Amended) Reaction vessel as claimed in claim [1] 8, characterised in that, seen in a plan view down onto the standing plane, the rows of reaction areas of the housing bottom part lie respectively adjacent to the rows of reservoirs.

19. (Amended) Reaction vessel as claimed in claim 1, characterised in that a [predeterminable] number of reaction chambers is provided in the housing bottom part, the number being selected from a group based on a mathematical formula of 3×2^N where N is a natural number.

20. (Amended) Reaction vessel as claimed in claim [1] 8, characterised in that the housing bottom part is made from a transparent plastics material.

27. (Amended) Reaction vessel as claimed in claim [1] 26, characterised in that the recesses of the vessel top parts are of a cylindrical disc shape or in the form of a plate-like, quadratic cuboid.

28. (Amended) Reaction vessel as claimed in claim [1] 26, characterised in that the recesses of the vessel top parts are designed to have a capacity in the region of less than 5 µl.

32. (Amended) Reaction vessel as claimed in claim 1, characterised in that a [predeterminable] number of vessel top parts is provided in the vessel cover, the number being selected from a group based on the mathematical formula of 3×2^N where N is a natural number.

35. (Amended) Reaction vessel for producing a [sample, in particular of a] crystal[,] from a substance in solution or in liquid form, comprising at least one housing part and having several reaction chambers, each forming a separate gas chamber, [made up of at least one housing part] and each reaction chamber housing [has] a reservoir and several reaction areas co-operating therewith, the reaction areas being connected to one another and to the reservoir in order to exchange gas, [characterised in that] the reaction chambers [are] being in the form of prisms with a regular hexagonal base surface and [these reaction chambers are] being disposed in a honeycomb arrangement.